

Mr. Syed Safeer Hussain,
Registrar,
NEPRA,
Islamabad

Ref # KE/BPR/NEPRA/2018/176
April 23, 2018

Subject: Modification of Generation Licence [GL/04/2002]

Dear Sir,

KE was issued Generation Licence No. GL/04/2002 on November 18, 2002 (“**Generation Licence**”) under Section 25 of the NEPRA Act, 1997. In the past, Generation Licence has been modified by NEPRA as per the requests of KE with the latest modification (“**Modification VII**”) granted vide NEPRA letter # NEPRA/ADG(L)/LAG-243/3183-87 dated February 28, 2018. Considering the current demand/supply situation along with growing electricity requirements of the Karachi City and significant curtailment of Natural Gas by SSGC, KE is proposing to use RLNG as an optional/backup fuel to ensure availability of plants in case of reduction in natural gas supply.

The proposed change will improve availability of generation plants due to option of RLNG, however, the same will be achieved at the cost of increase in tariff to consumers, as it is thrice as expensive as Natural Gas. In view of existing situation affecting consumers, no other cheaper option is available to KE, hence we request NEPRA to approve our request for modification with immediate effect to include RLNG as an alternate fuel source for existing plants as mentioned in the enclosed document.

In light of above, this application is being submitted under Sub Rule (2) of the Rule 10 of the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999 for Modifications of the Generation License. In relation, hereto, this is to certify that the following documents in support enclosed with this modification application are prepared and submitted in conformity with the provisions of the Regulations, and that the Company undertakes to abide by the terms and provisions of the Regulations.

- a) Text of Proposed Modifications
- b) Statement of Reasons and Specifications in support of Modifications
- c) Statement showing the impact of tariff, quality of service and the performances by KE of its obligations under the License
- d) Certified True Copy of Board Resolution
- e) Power of Attorney
- f) Affidavit

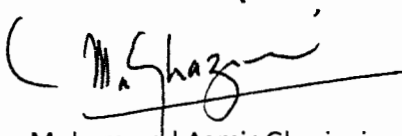


Additionally, please find enclosed cross cheque of Rs. 703,395 having # 00000188 dated 23-04-2018 of Habib Bank Ltd. being the license modification fee calculated in accordance with Schedule II to the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999, is also attached herewith.

We humbly request the Authority that modifications in the Generation License of KE be allowed and approved as per the Regulation 10 (11) of the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999 as the same is being done in line with existing crisis of unilateral reduction in gas supply quota by SSGC and to provide relief to consumers on urgent basis.

Further, considering the urgency of the matter, we request NEPRA to allow KE to use RLNG on provisional basis until the process for modification is completed as the same is required to bridge the demand supply gap in light of prevailing shortage of natural gas.

Sincerely,



Muhammad Aamir Ghaziani
Director – Finance and Regulations

Enclosure: Documents as mentioned a to f above.

Annex A To C

**ADDITION OF RE-GASIFIED LIQUIFIED NATURAL GAS (RLNG) AS ALTERNATE FUEL
SOURCE FOR KE'S POWER PLANTS**

A. Text of Proposed Modification

Option of Re-Gasified Liquefied Natural Gas (RLNG) is proposed to be added as an alternate fuel for KE's existing power plants. This is being done in purview of optimal utilization of KE's Generation Fleet and to overcome the reduced natural gas supply by SSGC.

B. Statement of Reasons and Specification in Support of Modification

Addition Of Re-Gasified Liquefied Natural Gas (RLNG) As An Alternate Fuel Source

KE's generation fleet has a total available capacity of 1,902 MW, out of which around 913 MW depends on gas and requires at least 180 MMCFD to operate, while BQPS 1 is the only plant that can operate on dual fuel (Gas and Furnace Oil). Year on year, the gas being provided to KE by SSGC for power production has been declining thereby hindering KE's ability to generate ample power from its gas fired plants in order to meet the power demand of Karachi and its adjoining areas.

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
	MMCFD												
2015	110	119	123	167	209	205	256	198	213	216	182	129	177
2016	127	132	154	179	208	203	196	186	194	182	136	105	167
2017	90	97	110	152	171	186	173	159	164	158	134	101	141
2018	90	88	90	92	-	-	-	-	-	-	-	-	89

As seen above, the current issue of erratic and reduced supply of gas received from SSGC, has seriously impaired the availability of KE's generation fleet. While, KE is evaluating the option of High Speed Diesel (HSD) as an alternate fuel for BQPS II and KCCPP, we have also evaluated the possibility of operating the power plants mentioned in Exhibit 1 of Part C of this document on RLNG subject to certain modifications/ alterations at Plant sites. Hence, in view of aforementioned, we request NEPRA to also include RLNG as an alternate Fuel Source for KE's Power Plants in Schedule I of KE's Generation License.

Further, in future KE would also evaluate option of dedicated RLNG line to ensure optimum cost and benefits for consumers.

Benefits:

The benefits associated are entailed below:

- Optimal utilization of KE's existing generation fleet due to removal of fuel supply constraints.
- Improvement in operational flexibility of the existing generation fleet by having different fuel mix options.
- Benefits for consumers due to reduction in usage of Furnace Oil at BQPS-I as well as a cheaper source of power as compared to other alternative fuel i.e. HSD

Scope of Work:

With certain minor alterations in anatomical structure of KE's Power Plants, these plants will be ready for their operation on RLNG. However, the proposed modification will not result in change in any operational parameters of the existing power plants.

Fuel:

In our meetings with Government for resolution of gas supply issues, both SSGC and GoP has confirmed availability of RLNG and in this regard agreement is expected to be finalized soon and will be submitted to NEPRA accordingly.

C. Impact on Tariff

Usage of RLNG will result in increase of consumer tariff as RLNG is thrice as expensive as Natural Gas. However, in view of current scenario, where SSGC has unilaterally reduced the gas supply to KE's power plants and resulted in their redundancy, no other cheaper option is available to KE rather than operating them on RLNG. Additionally, as compared to High Speed Diesel (HSD) and Furnace Oil, RLNG is comparatively cheaper, hence a more viable option. Further RLNG shall only be used after full utilisation of available Natural Gas.

Exhibit 1 : Comparision of cost on different fuels

Reference fuel price - April 2018	Natural gas (NG)	Furnace oil (FO)	LNG	HSD
Fuel price - PKR / litre	-	-	-	76
Fuel price - PKR / m ton	-	49,080	-	-
Fuel price - PKR / mmbtu	400	1,216	1,145	2,087
Plant name	Natural gas (NG)	Furnace oil (FO)	LNG	HSD
	Cost per unit sent out* - PKR / kWh			
BQPS 1				
Unit 1	4.32	13.14	12.37	n/a
Unit 2	4.26	12.95	12.19	n/a
Unit 3 ¹ (Maximum generation on RLNG -25%)	4.40	13.37	12.59	n/a
Unit 4 ¹ (Maximum generation on RLNG -25%)	4.36	13.26	12.48	n/a
Unit 5	4.12	12.53	11.80	n/a
Unit 6	4.10	12.47	11.74	n/a
BQPS 2	3.20	n/a	9.15	16.68
KCCP	3.40	n/a	9.73	17.73
KGTPS	3.50	n/a	10.01	n/a
SGTPS	3.50	n/a	10.01	n/a

* Cost per unit is based on heat rates given by NEPRA in MYT review decision. For comparative purpose, same heat rates & auxiliary consumption has been used for all fuel types. Actual efficiencies on HSD can be ascertained at commissioning, however, these are usually lower than on Gas

¹ Units 3 and 4 of BQPS I owing to their technical anatomy, can only operate upto a maximum of 25 % on RLNG/Natural Gas

Therefore the proposed changes would result in lower tariff for consumers as opposed to usage of HSD or FO at these plants.

D. Impact on Quality of Service and the Performances by KE of its Obligations Under the License

The proposed modification will resultantly improve the availability of supply through addition of an another fuel option of RLNG, which can be used in situations where gas supply is reduced or is unavailable, subsequently improving the performance of KE as per its obligations under the License.

Annex. D

**Certified True Copy (CTC) of Resolutions
Passed by K-Electric Board of Directors at its Meeting
Held on Thursday, 19TH April 2018 at KE House,
39-B, Sunset Boulevard, Phase-II, DHA, Karachi**

Licensee Proposed Modification (LPM) in K-Electric's Generation License

RESOLVED THAT K-Electric be and is hereby authorized to file a Licensee Proposed Modification (LPM) in Generation License (No.GL/04/2002) with the National Electric Power Regulatory Authority (NEPRA), pursuant to Sub Rule (2) of Rule 10 of NEPRA Licensing (Application & Modification Procedure) Regulations 1999, for Addition of Re-Gasified Liquefied Natural Gas (RLNG) for existing generation plants as an alternate fuel, as and when available.

RESOLVED FURTHER THAT Chief Executive Officer (CEO), K-Electric be and is hereby authorized to nominate any officer of the Company, as he deems appropriate, to sign and file the LPM with NEPRA and such other deeds, documents, instruments etc. and take all necessary actions incidental and related to the LPM and appear before the Authority and admit execution thereof for and on behalf of the Company.



**Muhammad Rizwan Dalia
Company Secretary**

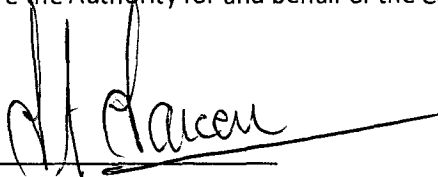
Dated: April 23, 2018

Annex E

Authority Letter

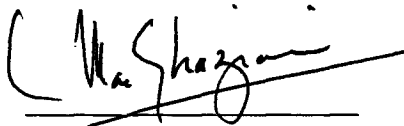
I, Muhammad Tayyab Tareen, s/o Muhammad Ajmal Tareen, Chief Executive Officer (CEO) of the K-Electric Limited, is authorized by the Board of Directors (BOD) of the Company through resolution passed in the Board Meeting of the Company held on 19th April 2018, to nominate any officer of the Company, as I deem fit, to sign and file Licensee Proposed Modification (LPM) in Generation License (No.GL/04/2002) with National Electric Power Regulatory Authority (NEPRA) and such other deeds, documents, instruments, etc. and take all necessary actions incidental and related to the LPM and appear before the Authority and admit execution thereof for and behalf of the Company.

Now, therefore, in exercise of powers vested in me by the BOD of the Company, I, hereby authorize Muhammad Aamir Ghaziani s/o Muhammad Anwer, CNIC No. 42301-1189331-3, resident of House no. 74L-I, Block 2 PECHS, Karachi, Director Finance, KE to sign and file LPM with NEPRA and such other deeds, documents, instruments, etc. and take all necessary actions incidental and related to LPM and appear before the Authority for and behalf of the Company.



Muhammad Tayyab Tareen
Chief Executive Officer
K-Electric Limited

Authorized Person:



Muhammad Aamir Ghaziani
Director Finance
K-Electric Limited

HBL HABIL BANK

Habib Bank Limited, Pakistan
HBL PLAZA BR, KARACHI
HBL PLAZA I.I. CHUNDRIGAR ROAD

Not Negotiable
Payee's A/C Only



Chaque No. 00000188

Date 23-Apr-2018

National Electric Power Regulatory Authority

Pay _____ or bearer
Seven Hundred Three Thousand Three Hundred Ninety Five only
Rupees _____

PKR 703,395/=

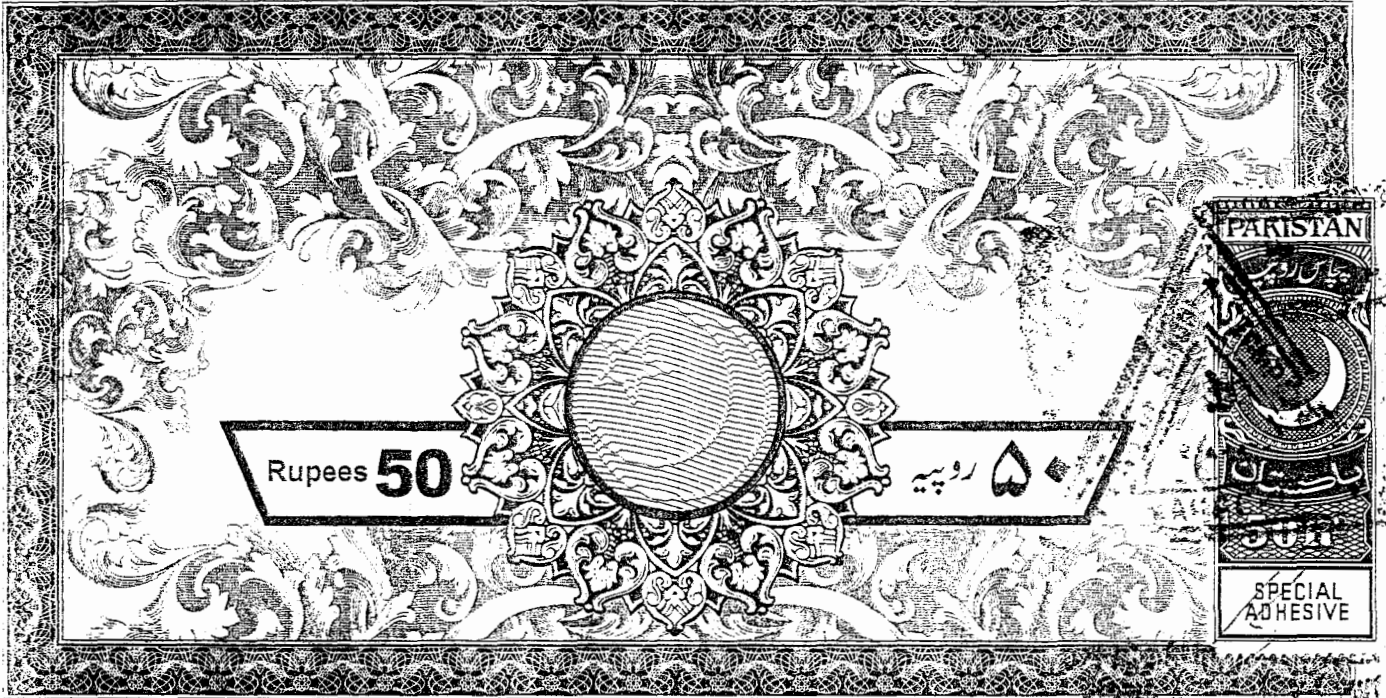
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K-ELECTRIC LIMITED



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Signature

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KHTAR ALI STAMP VENDOR 16 APR 2018

23 APR 2018

Shop # 22, Shop # 60, Opp. Sita Market
 MADPA Office, S.I.T.E., Karachi
 5419.....DATE M. Javed
 ED WITH ADDRESS..... Advocate
 UGH WITH ADDRESS..... No: 4103

(RUPEES FIFTY ONLY)

RS.....(ATTACHED).....
 IP VENDOR'S SIGNATURE

LICENSEE PROPOSED MODIFICATION (LPM) IN GENERATION LICENSE (NO. GL/04/2002) BEFORE THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

AFFIDAVIT

I, Muhammad Aamir Ghaziani s/o Muhammad Anwar, having CNIC # 42301-1189331-3, Muslim, adult, resident of House No. 74L-1, Block 2, PECHS, Karachi, Director Finance & Regulations - KE, do hereby solemnly affirm and declare as under:

1. That I am the applicant in the subject matter and well conversant with the facts of the Licensee Proposed Modification (LPM).
2. The contents of the enclosed modification to the Generation License under Regulation 10(2) of the National Electric Power Regulatory Authority Licensing (Application and Modification Procedure) Regulations, 1999, are true and correct to the best of my knowledge and belief.
3. I affirm that all further documentation and information to be provided by me in connection with the aforesaid modification to the Generation License shall be true and correct to the best of my knowledge and belief.
4. That, I am authorized to sign and file the LPM with NEPRA and such other deeds, documents, instruments etc. and take all necessary actions incidental and related to the LPM and appear before the Authority and admit execution thereof for and on behalf of the Company.

Dated: April 23, 2018